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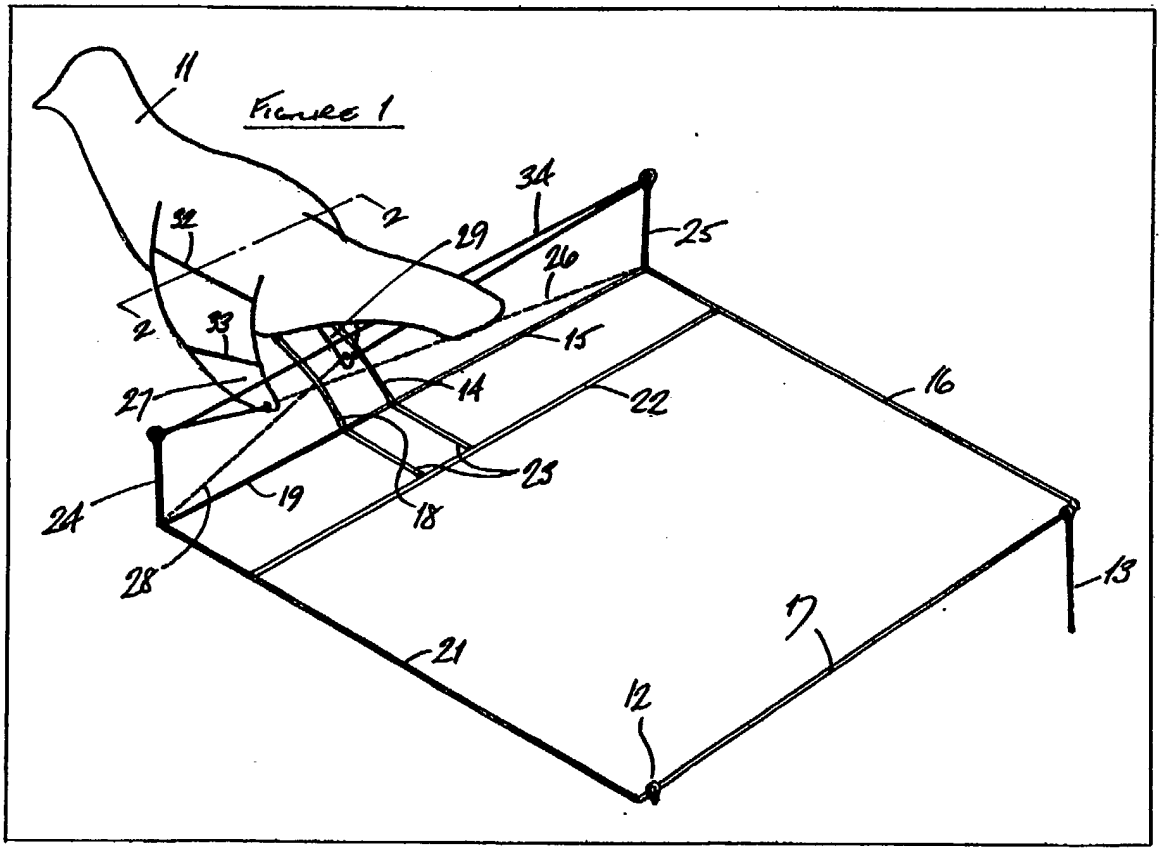
(54) **Bird decoy**

(57) A bird decoy comprises an artificial bird whose wings can be made to flap. The bird (11) is fixed to one end of a generally rectangular frame whose other end pivots about pegs (12, 13) driven into the ground. The frame holds the bird up in a standing attitude when the main side bars (16, 21) extend along the ground. The bird's wings (27, 29) are resiliently biased shut by elastic cords (26, 28) which run from each wing tip to a corner of the frame. A line (34) runs from one wing tip, out to and around an eye carried on an arm (24) projecting from the frame, the line comes back across the bird's body to and around another eye carried on another arm (25) and finally runs to the other wing tip. When the line (34) is pulled backwards at its mid-point, the wing tips (27, 29) will open about hinge lines (32, 33) against the resilience of the elastic cords (26, 28). If the line is pulled hard enough, the frame and hence the bird will rise from the ground about the pegs (12, 13).



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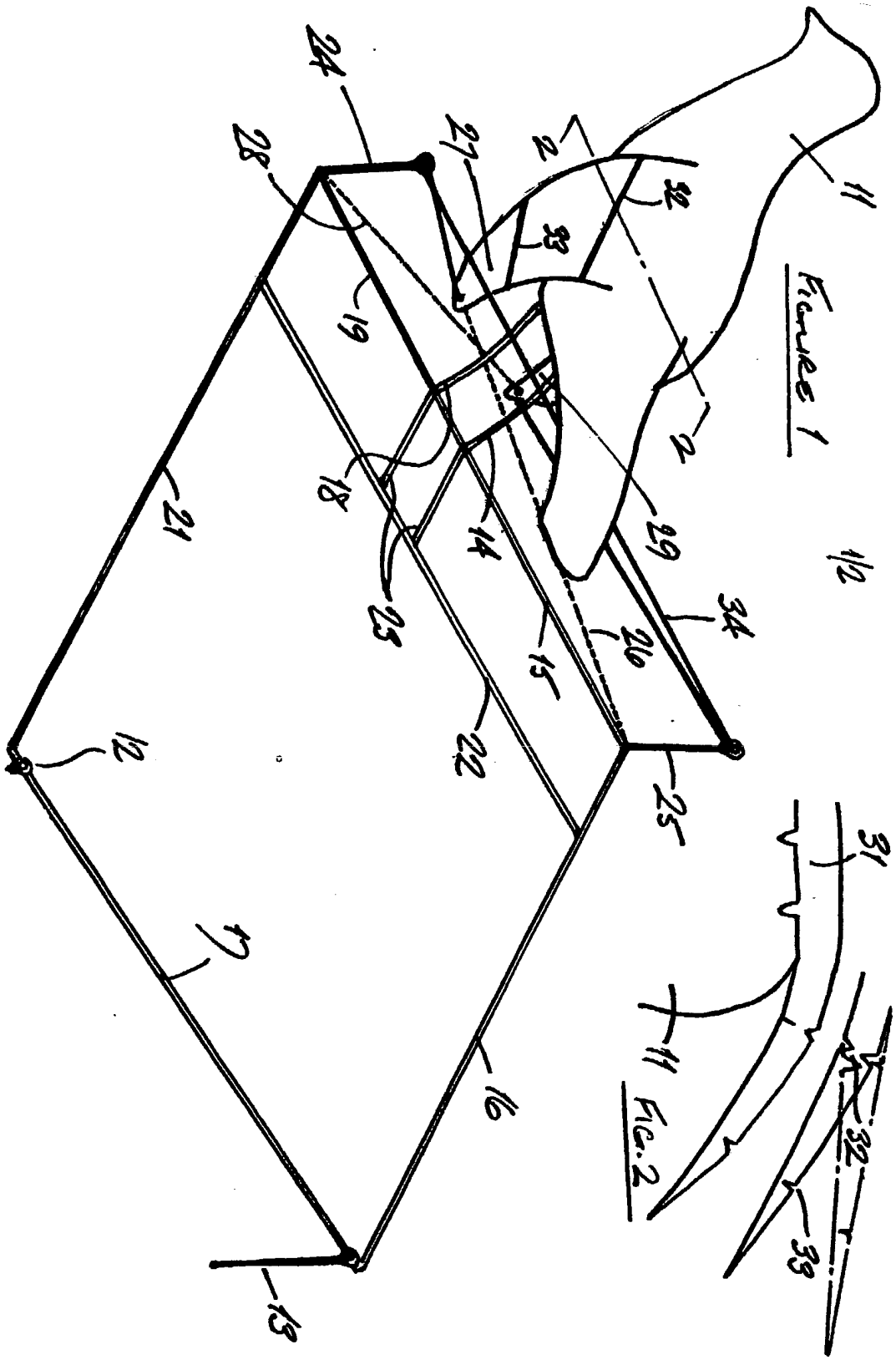

Figure 1

1/2

Fig. 2

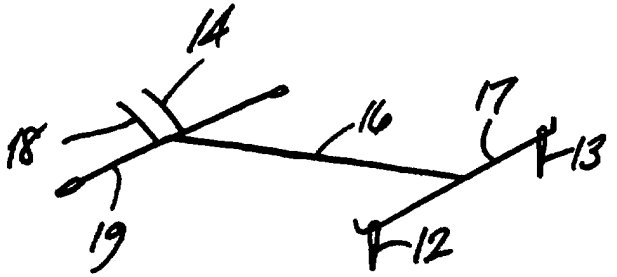

FIGURE 3

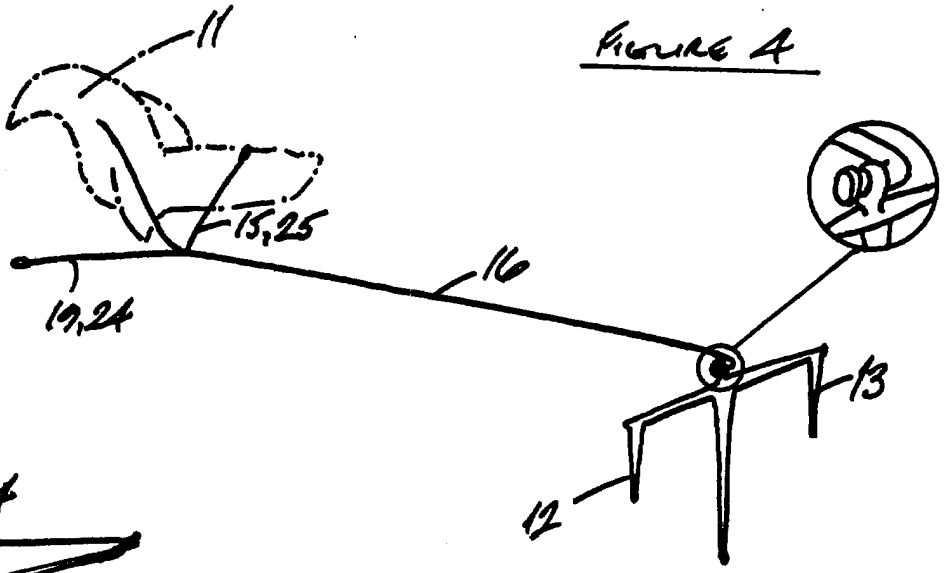

FIGURE 4

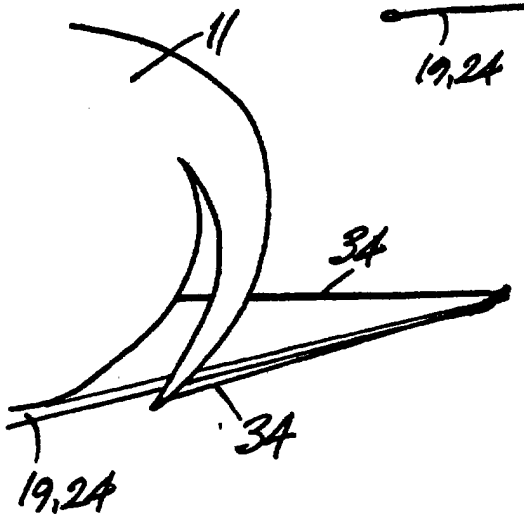

FIGURE 5

SPECIFICATION
Bird decoy

Field of the Invention

The invention relates to bird decoys. It is particularly concerned with bird decoys comprising an artificial bird whose wings can flap. Such decoys will be referred to as decoys "of the kind in question".

Review of the Prior Art

The applicant has had an extensive search made amongst previously published UK patent specifications. The object of this search was to survey the art in relation to decoys and in particular to decoys of the kind in question. The search was carried out in Division A1 (Animal Husbandry) Heading M24 (bird and other decoys) of the UK Patent Office classification system. It covered the period 1st January 1911 to 16th December 1981.

The following UK patents found in this search disclose bird decoys comprising artificial birds having little or no movement:

1 454 523	Graham A
1 385 023	Rayner M A et al
500 732	Caseley W
492 511	Burke R St. G et al
449 712	Burke R St. G
431 190	Boddy H E
389 522	Baker M & ICI Limited
341 236	Bower H M C et al
966 386	Durows W H et al
1 178 205	Stephens R A
327 063	Scott R L
920 340	Home-Gall D B
934 648	Whitehead C K
621 277	Aveline R P C
625 497	Feusner J L
611 844	Peskett J E
587 067	Smith J

The following UK patents disclose decoys which do incorporate movement and which constitute decoys of the kind in question:

536 474	Stops N
406 386	Penn A H
383 031	Mieville M F
1 308 253	Gregory P G
193 738	Turvey H W
2 067 064 A	Grace T H

Of the second list set out above, only two disclose decoys of the kind in question which also incorporate means enabling the decoy to rise from the ground as well as flap its wings. These are 536 474 (Stops) and 406 386 (Penn). The Stops decoy bird moves up and down a ratcheted pole and relies on gearing between the ratchet and the bird's wings to flap the wings as the bird rides up and down the pole. The Penn bird is suspended on a crossline between two poles and is pulled down towards and released away from the ground on that crossline.

The Stops and Penn decoys are more realistic than any of the other decoys listed above, but they are both relatively complex in construction and are thus unlikely to stand up to the rigours of practical use in the field. They also incorporate sufficient parts extra to the artificial bird to be somewhat unrealistic in appearance once they are set up.

The present invention seeks to provide a bird decoy which, like the Stops and Penn decoys, combines wing-flapping movement with rising and falling (i.e. "hopping") movement of the bird, whilst being more robust in use and less cumbersome in appearance than either of these two prior art decoys.

Summary of the Invention

According to the invention, a bird decoy of the kind in question is characterised by the following combination of features: the bird is fixed to one end of a bar whose other end pivots about a peg driven, in use, into the ground; the bar holds the bird up in a generally standing attitude when the bar itself is extending along the ground from the pivot; the bird's wings are resiliently biased shut; and a line runs from one of the bird's wing tips, out to and around an eye carried on an arm projecting from that side of the bird's body, the line comes back across the body to and around another eye carried on another arm projecting from the other side of the bird's body, and the line finally runs from that other eye to the adjacent other one of the bird's wing tips.

With such a decoy, if the line is pulled backwards at its mid-point, the wing tips will open against the resilient biasing action whilst at the same time — if the line is pulled hard enough — the bar, and hence the bird, will rise about the pivot.

When the line is subsequently released, the bar — and hence the bird — will fall back to the ground again, and at the same time the wings will automatically spring shut.

The decoy, used thus, gives a most realistic impression of a bird alternately rising in flight and then settling down to the ground again. It achieves this impression using a construction which is far simpler than either of the two most relevant prior art decoys reviewed above.

Brief Description of the Drawings

In the accompanying drawings:

Figure 1 shows one bird decoy embodying the invention, in perspective;

Figure 2 is a section along the line 2—2 of Figure 1;

Figure 3 shows the frame of another decoy embodying the invention;

Figure 4 shows yet another decoy embodying the invention; and

Figure 5 illustrates diagrammatically a possible modification to the decoys shown in the other Figures.

Description of the Preferred Embodiments

The decoys illustrated will now be described with reference to the drawings. They are each only an example of forms which the invention might take within its broadest aspect. They are currently the best ways known to the applicant of putting the invention into practice.

An artificial bird referenced 11 in the drawings is made of papier-mache, plastics, or some other suitable material and is shaped in this instance generally to resemble a pigeon. The bird is fixed to one end of a generally rectangular frame whose other end pivots about two pegs 12, 13 carried on the frame. In use, each peg 12, 13 is driven into the ground to form a fixed pivot about which the frame can alternately rise and fall.

With the frame extending along the ground, as shown in Figure 1, the bird is held up in a generally standing attitude. The frame itself is welded up from stout yet relatively lightweight cylindrical metal rods. The frame members 14, 15, 16, 17 effectively constitute a bar one end of which carries the bird 11 whilst the other end pivots about the head of the peg 13. Similarly the members 18, 19, 21, 17 also constitute a bar with the bird 11 fixed to one end and the head of the peg 12 pivotally securing the other end of the bar to the ground.

A crossmember 22, and struts 23, brace and stiffen the rectangular frame to prevent it from twisting unduly in use. Posts 24, 25 rise from each opposite front corner of the frame and each carry a respective eye at their top end. These eyes carries by the posts 24, 25 are each spaced well out from the body of the bird 12 and are generally in-line across the body with the bird's wing tips.

An elastic cord 26 connects one wing tip 27 to the bottom of the post 25. Another elastic cord 28 similarly connects the other wing tip 29 to the bottom of the post 24. The cords 26, 28 constitute means resiliently biasing the wings shut, i.e. folded against the body of the bird.

As Figure 2 shows, the two wing sections of the bird are moulded in resilient plastics material and are formed integrally with a bridge piece 31 which carries them. The bridge piece and the wings are formed as a moulding separate from the bird body and are plugged and glued into place to complete the bird before the body is impaled and glued onto the members 14, 18 of the rectangular frame.

Each wing can be opened against the tension of its respective resilient biasing cord 26, 28. When the wings are opened, as shown in Figure 2, the cords 26, 28 are stretched. As Figure 2 also illustrates clearly, each wing incorporates two hinges (although only one wing is illustrated in detail). The primary hinge 32 is formed by moulding a V groove across the underside and topside of the wing. The secondary hinge 33 consists of a single V groove running across the topside of the wing adjacent the wing tip area.

Initially the wings are biased by the cords 26, 28 to shut against the sides of the bird's body, as shown in full line in Figure 2. When they open, the relatively weak primary hinge 32 opens first. If the wings are pulled farther open, the secondary hinge 33 eventually allows the wing tip region to straighten into line with the main part of the wing. The two "wing" additions to Figure 2 show this sequence, which is reversed once the wings are released to be pulled shut again by the cords 26, 28.

A non-elastic inextensible line 34 runs from the wing tip 27 out to and around the eye at the top of the post 24, comes back across the body 11 to and around the other eye at the top of the post 25, and runs back down to the other wing tip 29. When both wings are biased shut, the line 34 and the two elastic cords 26, 28 are taut but untensioned, as shown in Figure 1.

To use the decoy illustrated in Figures 1 and 2, the pegs 12, 13 are driven into the ground up to their respective heads, so that the frame carrying the bird 11 rests on the ground and holds the bird up in a generally standing attitude. A pull-line, not shown in the drawings, is fastened round the mid-point of the line 34. The user retreats back from the decoy until he has gained cover, paying out the pull-line as he does so, and eventually settles himself with the pull-line taut but untensioned in his grasp. If he pulls the line backwards towards him, the wing tips 27, 29 will automatically open. If he releases the line subsequently, the wing tips will be pulled shut by the cords 26, 28. If he repeats these movements the bird 11 appears to be flapping its wings.

If the user pulls the pull-line hard enough, he will cause the frame to pivot about the pegs 12, 13 as well as opening the wings of the bird. If he releases the line, the frame will fall automatically to the ground again as the wings close. If he does this alternately, the bird will appear to be hopping as well as flapping its wings.

Figure 2 shows an alternative frame. Pegs 12, 13 are again used, but the frame instead of being rectangular is now T-shaped with a central longitudinal bar 16 connecting the end crossmember 17 to the front crossmember 15. The bird 11, not illustrated in Figure 3, is impaled on members 14, 18 in the same way as that of Figure 1, and its wings open and close in the way illustrated in Figure 2.

Although the connections of line 34 and cords 26, 28 to the bird of Figure 3 are the same as those of the bird 11 illustrated in Figures 1 and 2, the eyes around which the line 34 runs have been moved to the extremities of the front crossmember 15 in Figure 3. The posts 24, 25 have been dispensed with. In some ways this is a neater arrangement than that of Figure 1, although it will be appreciated that the line 34 will be running virtually along the ground as it moves between the two eyes, and this in some circumstances might make for slightly less easy operation than the Figure 1 arrangement.

Because the sidemembers 16, 21 are omitted from the Figure 3 construction, the opposite ends of the rear crossmember 17 are turned up as illustrated to stop the frame coming out of the

pegs 12, 13 in use.

In Figure 4 the frame has been simplified still further. A single pivot-headed peg has separate spikes 12, 13 on either side of a main central spike so that the peg will not rotate after having been driven into the ground. A single bar 16 is again used but this time the bird 11 is fixed directly to the upstanding end of that bar. The line 34 (not illustrated in Figure 4) again connects the two wing tips and runs around eyes as in the previous two embodiments, but the eyes are carried at the ends of respective arms 19, 24 and 15, 25 which project up at an angle from the bar 16.

As shown in Figure 5, the wings of the Figure 4 decoy are inherently resilient and can be opened against their own inherent resilience. The elastic cords 26, 28 of the previous embodiments are not needed, and the wings themselves incorporate neither of the hinges 32, 33 which were used in the embodiments of Figures 1, 2 and 3. They are moulded integrally with the rest of the body 11.

To make any of the illustrated decoys more easily portable, the frame (Figure 1) or the bars 16 (Figures 3 and 4) could separate mid way along their length and could plug together again when in use. The artificial bird 11 could also unplug from its supports 14, 18 (Figures 1 and 3) or from the upstanding end of the bar 16 (Figure 4), in either case without necessarily having to unhook either of the cords 26 and 28 or the line 34.

All the decoys illustrated are of course operated from the rear, with the user pulling the (not illustrated) pull-line backwards from the rear of the decoy towards himself.

CLAIMS

1. A bird decoy of the kind in question and characterised by the following combination of features: The bird is fixed to one end of a bar whose other end pivots about a peg driven, in use, into the ground; the bar holds the bird up in a generally standing attitude when the bar itself is extending along the ground from the pivot; the bird's wings are resiliently biased shut; and a line runs from one of the bird's wing tips, out to and around an eye carried on an arm projecting from that side of the bird's body, the line comes back across the body to and around another eye carried on another arm projecting from the other side of the bird's body, and the line finally runs from that other eye to the adjacent other one of the bird's wing tips.

2. A decoy according to Claim 1 and characterised in that the bar forms part of or is constituted by a generally planar frame.

3. A decoy according to Claim 1 or Claim 2 and characterised in that the bar can separate into sections for easier transport.

4. A decoy according to any of the preceding Claims and characterised in that the peg has spaced-apart ground-engaging tips or comprises two spaced-apart pegs each having a ground-engaging tip.

5. A decoy according to any of the preceding Claims and characterised in that there are two pivots spaced-apart across the bar.

6. A decoy according to any of the preceding Claims and characterised in that the wings open and close about hinge lines.

7. A decoy according to any of the preceding Claims and characterised in that the wings are initially formed separately from the body.

8. A decoy according to any of the preceding Claims and characterised in that the wings are formed of material which is inherently resilient.

9. A decoy according to any of the preceding Claims and characterised in that the eyes around which the wing-operating line runs are held off the ground by said projecting arms when the bar rests on the ground.

10. A bird decoy substantially as described herein with reference to and as illustrated in Figures 1 and 2 of the accompanying drawings.

11. A bird decoy according to Claim 10 when modified substantially as described herein with reference to and as illustrated in Figure 3 of the accompanying drawings.

12. A bird decoy according to Claim 10 when modified substantially as described herein with reference to and as illustrated in Figure 4 of the accompanying drawings.

13. A bird decoy according to any of Claims 10, 11 and 12 when modified substantially as described herein with reference to and as illustrated in Figure 5 of the accompanying drawings.

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